

ABSTRACT

Information pertaining to characteristics of consumables such as metal welding electrode wire and shielding gas and which characteristics are useful in connection with adjusting welding parameters in an arc welding process and/or selecting between operating modes in a welding system are encoded on welding wire and/or on other memory components such as bar code labels and tags, 5 RFID cards and tags, IC cards, and Touch Memory buttons, and the memory device is scanned prior to and/or at the point of use of the welding wire or shielding gas for enabling tracking of product distribution, manual and/or automatic selection of an operating mode for the welding system, manual and/or automatic adjustment of welding parameters in a given operating mode, consumables inventory, and the like.